Appendix C: Biographies for the Collaboration

Berkeley (University of California)

Dmitry Budker, Associate Professor in the Physics Department
Education: Ph.D. (Physics) UC at Berkeley (1993); MS Novosibirsk State U, USSR (1985)
Employment: UC at Berkeley and Faculty Scientist with LBNL (2001-), Assistant Professor (1995-2001), Postdoctoral Researcher (1993-95)
Publications: ~ 50 journal articles and 25 invited talks
Research: Dimitry Budker has worked on atomic physics tests of fundamental symmetries, laser spectroscopy, and high-sensitivity magnetometry.

Alexander Sushkov, Graduate Student in the Physics Department
Education: Graduate Student (Physics) UC at Berkeley, B.S. U of New South Wales, Sydney, Australia (1999)
Employment: LANL-Staff Research Assistant (2001-), UC at Berkeley (Physics) Graduate Student Research Assistant and Graduate Student Instructor (1999-2001)
Publications: 1 journal article
Experience: Alexander Sushkov has conducted research in theoretical and experimental condensed matter physics. His graduate research is in atomic low-temperature precision magnetometry.

Valeriy Yashchuk, Assistant Researcher in the Physics Department
Educational: Ph.D. (Physics) St. Petersburg Nuclear Physics Institute (PNPI), Russia (1994), MS (Nuclear Physics) St. Petersburg State U, Russia (1979).
Employment: UC at Berkeley Physics-Assistant Researcher (2000-), Postdoctoral Researcher (1997-2000), PNPI-Molecular Beam Laboratory, Junior Researcher, Researcher, (1981-97), Nucleus Fission Laboratory, Research Assistant (1979-81).
Publications: 28 journal articles, 6 Russian patents, and ~15 invited talks.
Research: Val Yashchuk has used atomic and molecular spectroscopy and beams for tests of fundamental symmetries. He has also employed nonlinear magneto- and electro-optics effects as well as high-sensitivity magnetometry.

California Institute of Technology

Brad Filippone, Professor of Physics
Education: Ph.D. (Nuclear Physics) U of Chicago (1983), M.S. U of Chicago (1979), B.S. Pennsylvania State U (1977)
Employment: Caltech-Professor of Physics (1995-), Associate Professor (1990-95), Assistant Professor (1984-90), Argonne National Lab-Postoctoral Physicist (1982-83)
Publications: Many journal articles and invited papers
Research: Brad Filippone is a member of the UCN A experiment and works in other areas of nuclear physics.

Takeyasu Ito, Senior Postdoctoral Scholar in Physics
Education: D.Sc (Physics) U of Tokyo (1997), M.S. (Physics) U of Tokyo (1994), B.S. (Physics) U of Tokyo (1992).
Employment: Caltech-Senior Postdoctoral Scholar (2001-), Postdoctoral Scholar (1998-2001), Laboratori Nazionali di Frascati, INFN, Italy-Postdoctoral Fellow (1998)
2. Institution and Department
W.K.Kellogg Radiation Laboratory
California Institute of Technology
Publications: 12 journal articles and 4 invited talks
Research: Takeyasu Ito has studied the low-energy kaon-nucleon interaction, exotic atoms, parity violating electron scattering, neutron beta decay, and ultracold neutrons.

Robert McKeown, Professor of Physics
Education: Ph.D. (Physics) Princeton U. (1979), B.A. (Physics) State U. of New York at Stony Brook (1974).
Employment: Caltech-Professor (1992-), Associate Professor (1986-92), Assistant Professor (1981-86), Argonne National Lab-Assistant Physicist (1979-80), Research Associate (1978-79).
Publications: 99 journal publications, 1 book edited, many invited talks.
Research: Bob McKeown has experience in nuclear physics, weak interactions, polarized 3He target development, parity violating electron scattering, neutrino oscillations, ultra-high energy cosmic rays.

Hahn-Meitner Institut

Robert Golub, Research Fellow
Education: Ph.D. (Physics) Mass. Inst. of Technology (1968), M.Sc (EE) Mass. Inst. of Technology (1960), B.Sc. (EE) City College, NY (1959).
Employment: Hahn-Meitner Institut (1991-), Technical U Berlin (1986-91), Max Plank Institut for Physics, Freimann, Germany (1985-86), Technical U Berlin (1980-85), U of Sussex, England (1968-80), Brandeis U (1967-68).
Publications: 97 journal articles, 1 book, and 7 review papers and ~100 invited talks.
Research: Robert Golub's research interests are concentrated in three areas at present: ultracold neutrons (UCN), spin echo spectroscopy and general considerations in the design of neutron scattering instruments. UCN studies include the interaction of neutrons with superfluid He and applications of UCN-induced scintillations in He to neutron EDM and lifetime experiments. His spin echo work concerns development of the technique of zero field neutron spin-echo high-resolution spectroscopy. There are currently 6 instruments in existence or under construction. He is also applying space-time correlation functions to the design of neutron scattering instruments.

Ekaterina Korobkina, Research Scientist

Education: Ph.D. (Nuclear Physics) Moscow Engineering Physics Institute (1990), Diploma (Engineering Physics) Moscow Engineering Physics Institute (1981), Degree (Physics) Far Eastern U (1978).
Employment: Hahn-Meitner-Institut-Research Scientist (2000-), Johannes Gutenberg U-Visiting Scientist (1999-2000), RRC Kurchatov Institute-Staff Physicist (1992-), Institute of Space Research, Moscow-Staff Engineer (1986-91).
Publications: 9 journal articles
Research: Ekaterina Korobkina is interested in ultra cold neutron interaction with condensed matter, radiative capture andits application to surface and coating studies, downscattering in LHe forUCN production, upscattering at low temperature and quasielastic scattering on liquid surface. UCN storage and production; application of non and polarised He-3 to neutron polarization and detection, search for parity and time non-invariant correlation in reactions with slow neutrons.

Harvard University

John Doyle, Professor of Physics
Education: Ph.D. (Condensed Matter and Atomic Physics) Massachusetts Institute of Technology (1991) Thesis: Energy Distribution Measurements of Magnetically Trapped Spi- Polarized Hydrogen: Evaporative Cooling and Surface Sticking.
Employment: Harvard-Professor of Physics (2000-), John L. Loeb Associate Professor of the Natural Sciences and Associate Professor of Physics (1997-99)
Harvard University, 1993-1997, Assistant Professor of Physics (1993-97), MIT-Postoctoral Associate (1991-93).
Selected Publications: Buffer-gas Loading and Magnetic Trapping of Atomic Europium, J.Kim, B. Friedrich, D.Katz, D. Patterson, J. Weinstein, R. DeCarvalho and J.M Doyle, Physical Review Letters 78, 3665-8 (1997).
Magnetic Trapping of Calcium Monohydride Molecules at Millikelvin Temperatures, J.D.Weinstein, R. deCarvalho, T. Guillet, B. Friedrich, and J.M.Doyle, Nature 395, 148-50 (1998).
Magnetic Trapping of Neutrons, P.R. Huffman, C.R. Brome, J.S. Butterworth, K.J. Coakley, M.S. Dewey, S.N. Dzhosyuk, R. Golub, G.L.Greene, K.Habicht, S.K. Lamoreaux, C.E.H. Matooni, D.N. McKinsey, F.E.Wietfeldt, J.M. Doyle, Nature 403, 62 (2000).
No-sticking efect and quantum reflection in ultracold collisions, Areez Mody, Eric Heller, and J.M.\ Doyle, Physical Review B 64 085418-1/15 (2001).
Evaporative Cooling of Atomic Chromium, J.D. Weinstein, R. deCarvalho, C.Hancox, J.M.Doyle, Physical Review A 65 0216
Research: John Doyle's interests include trapping of ultracold neutrons and trapping of atoms and molecules. Past work has included (from oldest to newest) the cryogenic hydrogen maser, trapping of atomic hydrogen, evaporative cooling of atomic hydrogen, theory of evaporative cooling in magnetic traps, study of particle motions in magnetic traps, the demonstration of quantum reflection of atomic hydrogen from liquid helium, 1S-2S two-photon spectroscopy of trapped atomic hydrogen and theory of collisions, proposal and demonstration of buffer-gas loading of magnetic traps, magnetic trapping of atomic chromium and europium, magnetic trapping of CaH molecules, spectrosocpy of VO and CaH, spectrosocpy of PbO for EDM searches, study of scintillations in helium, magnetic trapping of ultracold neutrons, proposal for cryogenic detection of p-p neutrinos, development of methods for creation of large Bose condensates, trapping and cooling of fermionic chromium, measurement of the neutron beta-decay lifetime, direct beam loading into buffer-gas, trapping of NH, scintillation properties of neon.

University of Illinois at Urbana-Champaign

Douglas Beck, Professor in the Physics Department
Educational: Ph.D. (Physics) Mass. Inst. of Tech. (1986).
Employment: U. of Illinois-Professor of Physics (1989-), Caltech-Senior Research Fellow (1986-89).
Publications: ~ 40 journal articles and 40 invited talks.
Experience: Doug Beck has research experience in few-body nuclear and precision electroweak parity-violation physics.

David Hertzog, Professor in the Physics Department
Education: Ph.D. (Particle Physics) College of William & Mary (1983), M.S. (Particle Physics) College of William & Mary (1979), B.S. (Physics) Wittenberg U. (1977)
Employment: U. of Illinois-Professor of Physics (1997-), Associate Professor (1992-97), Assistant Professor (1986-92), Carnegie-Mellon U.-Research Associate, (1983-1986).
Publications: ~135 journal and conference papers and >70 invited talks.
Research: David Hertzog has worked on medium-energy experiments at the AGS, CERN, TRIUMF and PSI. His research activities include experiments in low-energy antiproton physics (at LEAR), exotic atoms, and precision measurements of muon properties such as the anomalous magnetic moment and the muon lifetime. He is co-spokesman of the muLan experiment at PSI.

Peter Kammel, Research Associate Professor in the Physics Department
Education: Ph.D. (Physics) U. of Vienna, Austria (1982).
Employment: U. of Illinois-Research Associate Professor (2000-), UC at Berkeley-Co-Principal Investigator, Medium Energy Physics Group (2000), Research Scientist (1985-86, 1994-2000), Austrian Academy of Sciences-Research Scientist (1982-94).
Publications: >100 refereed articles and 12 invited talks.
Research: Peter Kammel has worked on medium-energy physics experiments at PSI, TRIUMF, BEVELAC, AGS and CERN. The projects include, in particular, high precision electro-weak experiments with muons. He is co-spokesman of the MuCap experiment at PSI.

Jen-Chieh Peng, Professor in the Physics Department
Education: Ph.D (Nuclear Physics) U of Pittsburgh (1975), B.S. (Physics) Tunghai U, Taiwan (Republic of China) (1970)
Employment: Professor of Physics, U of Illinois (2002-), Technical Staff Member of Subatomic Physics Group / Lab Fellow, LANL (1978-2002), Senior Research Associate, U of Pittsburgh (1977-78), Research Associate in Nuclear Physics, Centre d'Etudes Nucleaires de Saclay, France
Publications: ~150 journal articles and 50 invited talks.
Research: Jen-Chieh Peng had worked on accelerator based medium-energy experiments at LAMPF, AGS, Fermilab and CERN. He has been spokesman or co-spokesman of 8 experiments at these facilities. His research activities include parton structure in nucleon and nuclei, hypernuclei, proton-nucleus interactions, meson production, heavy-quark production, and fundamental physics with neutrons.

Steven Williamson,

Institut Laue-Langevin

James Butterworth, Co-responsible for the PF2 Ultracold Neutron Source
Education: PhD. (Physics) U of Grenoble, France (1996), MSc. (Superconductivity and Cryogenics) U of Southampton, UK (1992), BSc. (Electronic Engineering and Physics) U of Loughborough, UK (1990).
Employment: ILL, Grenoble, France-Co-responsible for the PF2 Ultracold Neutron Source (1999-), Harvard U-Postdoctoral Research Associate (1996-98), Brush Traction Ltd., Loughborough, UK-Design Engineer (1991)
Publications: 18 journal articles
Research: James Butterworth has done a spectroscopic study of the upscattering of UCN from superfluid helium, ultra-high resolution thermometry in the region of the superfluid Transition, and magnetic trapping of ultracold neutrons in superfluid helium.

University of Leiden

Giorgio Frossati, Professor of Experimental Physics
Education: Ph.D. Centre des Recherches sur les Très Basses Temperatures of the CNRS (1980), M.S. U of S. Paulo (1967), B.S. U of S. Paulo (1969)
Employment: Leiden-Professor of Experimental Physics (1980-), Chairman of the Kamerlingh Onnes Laboratory (1991-93).

Publications: ~170 papers and 100 talks
Research: Giorgio Frossati has specialized in quantum fluids and solids, particularly solid and liquid ^{3}He, ^{4}He, mixtures of ^{3}He in ^{4}He and the quantum effects due to nuclear polarization of ^{3}He, magnetic resonance imaging for medical application and nuclear fusion. Cryogenic techniques associated with the production and measurement of ultralow temperatures. Visual observation of quantum crystals using a cold CCD camera at ultra low temperatures in high magnetic field. Low temperature gravitational wave detectors

Los Alamos National Laboratory

Peter D. Barnes, Technical Staff Member of the Subatomic Physics Group
Education: Ph.D. (Physics) Yale University, 1965, B.S. (physics) University of Notre Dame, 1959
Employment: LANL-Technical Staff Member, SubAtomic Physics Group (1999-), Director of the Physics Division (1993-99), Director of LAMPF and MP Division (1991-93), Carnegie-Mellon U.-Professor of Physics (1968-91), LANL-Postdoctoral Fellow (1966-68), Niels Bohr Institute, Copenhagen, Denmark-Postdoctoral Fellow (1964-66).
Publications: ~150 journal articles and ~40 invited talks at Conferences
Research: Peter Barnes has worked on accelerator based nuclear and particle physics experiments at LANSCE, RHIC, AGS, CERN, LAMPF, the ZGS, and various Van de Graaff accelerator facilities, and as leader of the nuclear and particle physics group at CMU. His research has addressed: formation and x-ray decay of kaonic, antiprotonic, and sigma atoms, pion and kaon -nuclear interactions, spectroscopy of hypernulcear systems, studies of hyperon-antihyperon interactions, time reversal invariance tests, measurement of the sigma magnetic dipole moment, investigation of the hyperon-nucleon weak interaction, collisions of relativistic heavy ions at ultra high energies and energy densities, and fundamental physics with neutrons.

Jan Boissevain, Technical Staff Member of the Subatomic Physics Group
Education: B.A. (Physics) UC at Santa Barbara (1969).
Employment: LANL- Technical Staff Member (1986-), Technician (1973-85).
Publications: ~50 journal articles
Experience: Jan Boissevain has extensive experience designing and constructing a wide range of physics experimental apparatus: cryogenic refrigerators, wire chambers, silicon detectors, scintillators, and electronics system integration.

Martin Cooper, Deputy Group Leader of the Subatomic Physics Group
Education: Ph.D. (Physics) U of Maryland (1971), B.S. (Physics) Cal. Inst. of Technology (1967)
Employment: LANL-Deputy Group Leader of Subatomic Physics Group (1999-), Technical Staff (1975-99); Director's Postdoctoral Fellow, LANL (1974-75), Research Associate, U of Washington (1971-74).
Publications**:** ~90 journal articles and 35 invited talks.
Research: Martin Cooper has worked in fundamental symmetry measurements, pion-nuclear physics, rare-muon deays, and neutron physics. He was spokesman for the MEGA experiment

Michelle Espy, Technical Staff Member of the Biophysics Group
Education: Ph.D. (Physics) U of Minnesota (1996), B.S. (Physics) UC at Riverside (1991).
Employment: LANL-Technical Staff Member of Biophysics Group (1999-), Director's Postdoctoral Fellow (1996-99) of Biophysics Group
Publications: 17 journal articles
Research: Michelle Espy has development of novel SQUID-based systems for detection of minute ($<10^{-12}$ T) magnetic fields of biological and non-biological origin. She has a background in experimental nuclear physics including polarized ^{3}He targets.

Steve Lamoreaux, Laboratory Fellow of the Neutron Science Group
Education: Ph.D. (Physics) U of Washington (1986), M.S. (Physics) University of Oregon (1982), B.S. (Physics) University of Washington (1981).
Employment: LANL-Laboratory Fellow (1998-), Technical Staff Member (1996-98), U Washington, Physics Dept.-Research Associate Professor (1995-96), Posoctoral Fellow (1986-94).
Publications: 70 journal articles, two books, ~50 invited talks
Research: Steve Lamoreaux has worked on cold and ultracold neutron (both experimental techniques and theory). He also works in atomic and laser spectroscopy with applications to fundamental measurements, ultra-sensitive magnetometry; radio frequency spectroscopy; quantum cryptography and quantum computing (both theory and experiment).

Andrei Matlachov, Technical Staff Member of the Biophysics Group
Educational: Ph. D. (Physics) Russian Academy of Sciences (1988)
Employment: LANL-Technical Staff Member (1998-), Conductus, Inc., Sunnyvale, CA

Publications: ~70 journal articles and 8 invited talks
Research: Andrei Matlachov works with LTS and HTS SQUID design and applications, biomagnetism and SQUID instrumentation for biomagnetic applications, SQUID-based instrumentation for non-destructive evaluation (NDE), material science, solid state physics, fundamental physics; high-resolution SQUID susceptometry.

Richard Mischke, Technical Staff Member of the Subatomic Physics Group
Education: Ph.D. (Physics) U. of Illinois (1966), M.S., U. of Illinois (1962), B.S. U. of Tennessee (1961)
Employment: LANL-Technical Staff Member (1971-), Princeton University (1966-71)
Publications: 72 journal articles and many invited talks.
Research: Richard Mischke works in experimental nuclear and particle physics with an emphasis on weak interactions and symmetry tests including parity violation in nucleon-nucleon scattering and rare decays of the pion and muon.

Seppo Penttila, Technical Staff Member of the Neutron Science Group
Education: Ph.D. (Physics) U. of Turku, Finland (1975), Licenciate of Philosophy, U. of Turku, Finland, M.Sc. (Physics) U. of Turku, Finland
Employment: LANL-Technical Staff Member (1985-), CERN-Scientific Associate (1982-84), U. of Turku, Finland-Assistant Professor of Physics (1976-84).
Publications: 96 journal articles and 30 invited talks.
Research: Seppo Penttila has searched for parity violation and time reversal invariance violation in neutron reactions, the neutron electric dipole moment, and extensions to electroweak SM through neutron beta decay. He has studied other fundamental physics with low energy neutrons, searched for the proton's weak charge in electron scattering, and studied the spin structure of nucleon with electron and photon scattering. He has extensive experience in cryogenics and neutron technology.

Justin Torgerson, Fredrick Reines Postdoctoral Fellow in the Neutron Science Group
Education: Ph.D (Physics) University of Rochester
Employment: LANL- Frederick Reines Postdoctoral Fellow, U. of Washington-Postdoctoral Researcher.
Publications: 15 journal articles and 4 invited talks.
Research: Justin Torgerson has studied a variety of optical coherence phenomena including quantum phase, two-photon coherences and fundamental tests of quantum mechanics and local realism. He has also studied single trapped ions as possible ultra-precise optical frequency references. In particular, he was involved in two experiments

that were based on In II and Ba II ions for which he designed, constructed and employed a wide variety of experimental apparatus.

University of Maryland

Elizabeth Beise, Professor of Physics
Education: Ph.D. (Physics) Massachusetts Institute of Technology (1988), B.A. Carleton College (1981).
Employment: U. of Maryland-Professor (2002-), Associate Professor (1997-2002), Assistant Professor (1993-97), Caltech-Senior Research Fellow (1990-93), Research Fellow (1988-90).
Publications: 42 journal articles, 1 book, 21 invited talks
Research: Elizabeth Beise has performed experimental studies of the structure of the nucleon and of light nuclei using electromagnetic and weak electron scattering. She was co-spokesperson of two recent experiments: parity-violating electron-deuteron scattering at 200 MeV at MIT-Bates (SAMPLE-II) and measurement of deuteron tensor polarization at high momentum transfer at JLAB ("JLab-t20"). She is presently computation manager for the Jlab G0 experiment and has experience with data acquisition and analysis and cryogenic target systems.

Herbert Breuer, Associate Research Scientist
Education: Ph.D. (Physics) University of Heidelberg (1976), Diploma (Physics) University of Heidelberg (1974)
1968-74, Physics at the Universities of Mainz, Hamburg, and Heidelberg, West Germany
Employment: U. of Maryland-Associate Research Scientist (1985-), Assistant Professor (1979-85), Research Associate (1977-79), Max-Planck-Institut fuer Kernphysik, Heidelberg-Research Associate (1976-77).
Publications: 109 journal articles and 9 invited talks

Research: Herbert Breuer planned, mounted, performed, and analyzed experiments in nuclear spectroscopy, heavy ion reactions, pion absorption, electron induced reactions. He is currently mostly involved in the preparation of experiments at Jlab (primarily G0) and detector development.

Philip Roos, Professor of Physics
Education: Ph.D. (Physics) Massachusetts Institute of Technology (1964) B.A. Ohio Wesleyan U. (1960)

Employment: U. of Maryland-Professor of Physics (1975-), Asssociate Professor of Physics (1971-75), Assistant Professor of Physics (1967-71), ORNL-Atomic Energy Commission Postdoctoral Fellow (1965-67), U. of Maryland-Visiting Assistant Professor of Physics (1964-65).
Publications: 111 journal articles and 23 invited talks
Research: Philip Roos has more that 38 years of experience in experimental nuclear physics research, most of it accelerator based research. I have had extensive experience in the measurement of nuclear reactions, particularly reactions induced by hadrons (p, alpha, pi-mesons) and more recently by electrons. I have utilized almost all types of particle detectors and electronics currently in use in the field of nuclear and particle physics. Currently I am Deputy Spokesperson for a major parity violation measurement in elastic electron-nucleon scattering at Jefferson Lab (G0 experiment).

Massachusetts Institute of Technology

Dipangkar Dutta, Postdoctoral Research Associate, Laboratory for Nuclear Science
Education: Ph.D. Northwestern University (1999)
Employment: MIT-Postdoctoral research associate (1999-)
Publications: 18 refereed articles and 7 invited talks.
Research: Dipangkar Dutta has studied inclusive and exclusive electron scattering in nuclear interactions, nucleon propagation through nuclear matter and its significance to nucleon-nucleon interactions. He has also studied the spin structure of the nucleon and the quark-gluon description of the strong force. The tools have been electron scattering with polarized beams and targets. He has participated in experiments searching for signatures of QCD in nuclei and precision measurements of fundamental properties of the nucleon that involved the development of a laser driven polarized hydrogen target. He also has experience with a polarized helium-3 target that was part of a measurement of neutron magnetic moment.

Haiyan Gao, Associate Professor of Physics
Education: Ph.D. (Nuclear Physics) Cal. Inst. of Technology (1994), B.S. Tsinghua U, Beijing, China (1988).
Employment: MIT-Associate Professor (2002-), Assistant Professor (1997-2002), Assistant Physicist, Argonne NL (1996-97), Postdoctoral Research Associate, U of Illinois, Urbana-Champaign (1994-96).
Publications: ~36 journal articles and 29 invited talks.

Research: Haiyan Gao's research focuses on understanding the structure of nucleon and exclusive nucleon and nuclear processes at high energies in terms of the quark and gluon degrees of freedom of quantum chromodynamics using high energy electron and photon beams as probes. Most of her work utilizes the novel experimental technique of scattering longitudinally polarized electrons from polarized nuclear targets. She has conducted research at MIT-Bates, SLAC, DESY, IUCF and Jefferson Lab and has had more than 10 years of experience in polarized He3 external gas targets, laser-driven polarized H/D internal gas targets and the NMR techniques.

National Institute of Standards and Technology

Thomas Gentile, Physicist in the Ionizing Radiation Division
Education: Ph.D. (Physics) Massachusetts Institute of Technology (1989), B.S. (Physics) State U. of New York at Stony Brook (1979).
Employment: NIST-Physicist (1993-), Caltech-Postdoctoral Fellow (1990-93).
Publications: 21 journal and 12 invited talks
Research: Tom Gentile has worked on the development and application of neutron spin filters based on polarized 3He; metastability-exchange and spin-exchange optical pumping of 3He, optical radiometry, Rydberg atom studies.

Paul Huffman, Physicist
Education: Ph.D. (Nuclear Physics) Duke U. (1995), M.A. (Physics) Duke (1992), B.S. (Physics) North Carolina State U. (1990).
Employment: NIST-Physicist (2000-), National Research Council Postdoctoral Associate (1998-2000), Harvard-Associate (1998-), Postoctoral Fellow (1995-98).
Selected Publications**:**
C. R. Brome *et al. Magnetic Trapping of Ultracold Neutrons*. Phys. Rev. C, **63**, 055502 (2001).
P. R. Huffman *et al. Magnetically Stabilized Luminescent Excitations in Hexagonal Boron Nitride*. J. Lumin., **92**, 291 (2001).
P. R. Huffman *et al. Magnetic Trapping of Neutrons*. Nature, **403**, 62 (2000).
D. N. McKinsey *et al*. *Radiative Decay of the Metastable* $He^2(a\,^3\Sigma_u^+)$ *Molecule in Liquid Helium*. Phys. Rev. A, **59**, 200 (1999).
P. R. Huffman, C. R. Gould and D. G. Haase. *The Deformation Effect and Time-Reversal Violation in Neutron Resonances*. J. Phys. G, **24**, 763 (1998).

P. R. Huffman *et al. Test of Parity-Conserving Time-Reversal Invariance Using Polarized Neutrons and Nuclear Spin Aligned Holmium*. Phys. Rev. Lett., **76**, 4681 (1996).
C. D. Keith *et al. Measurements of the Total Cross Section for the Scattering of Polarized Neutrons from Polarized ^{3}He*. Phys. Rev. C, **54**, 477 (1996).
W. S. Wilburn *et al.* Measurements of Polarized Neutron – Polarized Proton Scattering: Implications for the Triton Binding Energy. Phys. Rev. Lett., **71**, 1982 (1993).
Research: Paul Huffman's research has centered around the production and trapping of ultracold neutrons for use in experiments to determine the weak force coupling constants and also to search for the permanent electric dipole moment of the neutron.

University of New Mexico

Alexei Babkin, Research Associate Professor of Physics
Education: Dr. Sci Kapitza Institute for Physical Problems (1999), Ph.D. Kapitza Institute for Physical Problems (1986), M.A. Moscow Institute for Physics and Technology (1980)
Employment: U. of New Mexico-Research Associate Professor of Physics (2001-), Research Assistant Professor of Physics (1999-2001), Helsinki U. of Technology, Finland-Research Fellow (1991-96), Lebedev Physical Institute, Moscow-Head of Cryogenic Department (1987-91).
Publications: ~60 journal articles and 1 book.

Robert Duncan, Professor of Physics
Education: Ph.D. (Physics) U. of California at Santa Barbara (1988), S.B. (Physics) Massachusetts Institute of Technology (1982).
Employment: U. of New Mexico-Professor of Physics (2001-), Associate Professor of Physics (1996-2001), Sandia National Lab-Distinguished Member of the Technical Staff (1995-96), Technical Staff (1988-95).
Publications: Many journal articles, 1 patent, and many invited talks.
Research: Rob Duncan is an experimental physicist specializing in critical phenomena near the ^{4}He superfluid transition, superconductivity, and in the development of ultra low-noise measurement techniques and their associated miniature cryogenic refrigeration systems for space and terrestrial deployment.

Oak Ridge National Laboratory

Vincent Cianciolo, Staff Member
Education: Ph.D. (Physics) Massachusetts Institute of Technology (1994), B.S. (Physics) U. of Michigan, Ann Arbor (1988).
Employment: ORNL-Staff Member (1997-), Lawrence Livermore-Postdoctoral Research Associate (1995-96), MIT-Postdoctoral Research Associate (1994).
Publications: 24 journal articles.
Research: Vince Cianciolo has significant experience in a variety of experimental nuclear physics areas, including: design and implementation of an advanced second-level trigger for BNL experiment E859; design, prototyping and construction of the PHENIX Muon Identifier (MUID) panels ($3.5M worth of Iarocci-tube based detectors covering 1300 m^2); design and management responsibilities for the MUID readout electronics ($1.4M, >6000 channels); development of experimental Monte Carlo simulation and calibration packages; world's first HBT analysis of identical kaons in heavy-ion collisions; development of the "default" PHENIX run plan emphasizing systematic exploration of species variation (light ions and asymmetric collisions).

Simon-Fraser University

Michael Hayden, Assistant Professor of Physics
Education: Ph.D. (Physics) U. British Columbia, Vancouver BC Canada (1992), M.A.Sc. (Engineering Physics) 1986 U. British Columbia, Vancouver BC Canada (1986), B.Eng. Univ. Sask. Saskatoon SK (1984).
Employment: Simon-Fraser-Assistant Professor (1998-), U. of Brit. Col.-Research Associate and Lecturer (1997-98), LANL-Postdoctoral Fellow (1994-97), Ecole Normale Superieure-NSERC Postdoctoral Fellow (1992-94), U. of Brit. Col.-Research Engineer (1986-87).
Publications: 28 journal articles and 20 invited talks
Research: Mike Hayden has experience with precision AMO techniques, magnetic resonance, superfluid 4He and cryogenic transport of highly spin-polarized 3He, metastability-exchange optical pumping of 3He, neutron radiography, and thermoacoustics.